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## **Entrepreneurial Psychological Capital**

### **Entrepreneurial Psychological Capital: A Different Way of Understanding Entrepreneurial Capacity**

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# **Entrepreneurial Psychological Capital**

## **Abstract**

The development of a model of entrepreneurial psychological capital will provide both an advance in the theoretical understanding of entrepreneurship, and has practical implications for policy makers and those who design entrepreneurship education. Derived from the positive psychological capital model, first developed by Luthans et al. (2007), in the organisational context, this new model of entrepreneurial psychological capital will also draw on the existing entrepreneurship psychology literature. Entrepreneurial psychological capital is defined as the psychological resources which entrepreneurs need to be successful. Unlike the predominant trait and cognitive models, it will focus on those state-like characteristics which are open to development, such as domain specific efficacy and resilience. This developmental paper considers the existing literature, where entrepreneurial psychological might fit within it and how it might be developed.

**Word Count: 1997**

## Introduction

The psychological perspective provided one of the original strands in entrepreneurship research (Bridge and O'Neill, 2012) but weak relationships between many of the fixed trait constructs originally studied, led to the development and study of cognitive models, and more recently the study of emotions, attitudes and self within the entrepreneurship context (Omorede et al., 2015). However, the domain has produced relatively few findings which have practical applications for entrepreneurs or the people who support them.

Recent work in organisational psychology, building on the positive psychology movement, has explored a framework of psychological states, which are open to development, and have been shown to be positively related to individual and organisational outcomes, such as, subjective and objective performance measures, organisation citizenship behaviours and wellbeing (Luthans et al., 2007, Avey et al., 2011). These state-like resources have been termed psychological capital and since the findings of the initial research was published over a decade ago, several hundred papers have been published, based on studies and meta-analyses on the subject.

To date, as far as we are aware, only three, limited studies have investigated psychological capital in the context of entrepreneurship (Jensen and Luthans, 2006, Hmieleski and Carr, 2008, Baron et al., 2013) but these have simply applied employee psychological capital measures to entrepreneurs rather than developing entrepreneurial psychological capital constructs independently. Their findings suggest a positive relationship between the psychological capital of entrepreneurs and authentic leadership measures, new venture performance and wellbeing.

The purpose of this development paper is to explore the extent to which psychological capital could be useful to both the study and practice of entrepreneurship and explore how the concept might be developed for the entrepreneurship domain.

## The psychological characteristics of entrepreneurs

Early studies focused on relatively permanent traits. Some of these have been developed by entrepreneurship researchers, such as locus of control, achievement orientation and autonomy (Borland, 1975, De Vries, 1977) where as others have been drawn from mainstream psychology, using the five factor personality model (Barrick and Mount, 1991). Whilst meta-analyses have clearly demonstrated that four of the five factors (conscientiousness, openness to experience, neuroticism and agreeableness) explain differences in entrepreneurial outcomes (Zhao and Seibert, 2006, Zhao et al., 2010) the effects sizes are small and results often not replicable. Additionally, the extent and heterogeneity of constructs studied, and issue of covariance implied in Frese and Gielnik (2014) creates an opaque picture both researchers and practitioners. See Figure 1.

Other strands of entrepreneurship psychology research include: cognitive models such planned behaviour (Ajzen, 1991), effectuation (Sarasvathy, 2009) and cognitive biases (Simon et al., 2000); emotions (Baron, 2008); and more recently interest in identity related ideas, such as, passion and fear (Omorede et al., 2015).

## Entrepreneurial Psychological Capital

<b>Figure 1 Psychological characteristics of entrepreneurs from entrepreneurship literature</b>		
		<b>Other</b>
<b>Derived from Big 5 Characteristics</b>		Autonomy
Achievement		Benevolence
Achievement facet of conscientiousness		Conformity
Agreeableness		Conservatism
Conscientiousness		Delay of gratification
Emotional stability		Discipline
Extraversion		Dogmatism
Neuroticism		Enthusiasm
Openness to experience		Expedience
		Flexibility
		Forthrightness
		Human capital
		Humility
		Internal locus of control
<b>Possibly Open to Development</b>		Motivation
Creativity		Need for achievement
Endurance		Need for affiliation
Future orientation		Need for autonomy
Goal orientation		Need for dominance
Innovativeness		Norm orientation
Locus of control		Originality
Optimism		Passion for work
Proactive		Practicality
Self-confidence		Protestant work ethic beliefs
Self-efficacy		Rigidity
Self-esteem		Risk-taking propensity
Self-reliance		Scepticism
Shyness		Sobriety
Social capital		Tenacity
Stress tolerance		Tough-mindedness
Tolerance for ambiguity		Trustworthy
Aggressiveness		Type-A behaviour

Figure 1 based on Rauch and Frese (2007); Frese and Gielnik (2014) and Frese (2009)

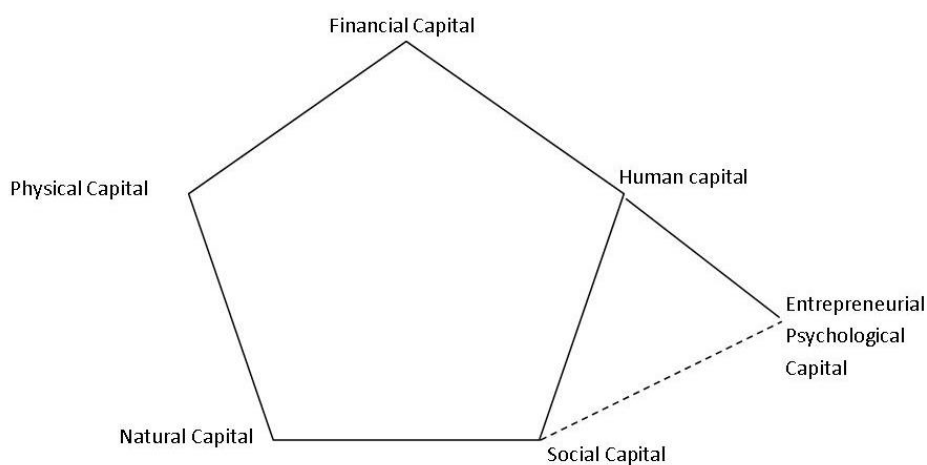
### Entrepreneurship success factors

The psychological tradition in entrepreneurship tends to focus on the description of entrepreneurship as a phenomenon, rather than as a way to inform entrepreneurship practice (Frese et al., 2012). We posit that by looking at those characteristics which are open to development, and which are positively related to entrepreneurial outcomes, it will be possible to design interventions which increase the likelihood of successful venture creation and performance.

## Entrepreneurial Psychological Capital

One practice focussed model of entrepreneurship has been to develop the notion of capital (originally finance) to include all of the resources needed to create and run an enterprise (Bridge and O'Neill, 2012). This approach allows policy makers to focus on what nascent and established entrepreneurs need to start and grow businesses, and informs interventions to fill the gaps. Our current view is that entrepreneurial psychological capital will be a useful addition to this model.

The traditional model is illustrated by the model (see Figure 2) and other models have been developed to include technological capital, intellectual capital and even political capital (Bridge and O'Neill, 2012). It is interesting to think about where psychological capital might sit within this framework.



**Figure 2 derived from UK's Department for International Development sustainable livelihoods model (1999)**

Audretsch and Keilbach (2004) suggested entrepreneurship capital to account for variance in regional entrepreneurial outcomes, not accounted for by other “capitals” and whilst they did not manage to identify what entrepreneurship capital was suggested it might be a subset of social capital. Entrepreneurial psychological capital could possibly be modelled as a subset of human capital but it may also provide a bridge between human and social capital.

### Traits and States

Perhaps the most important aspect of the proposed model for entrepreneurial psychological capital is that it proposes to investigate those psychological characteristics which are open to development. Luthans et al. (2007) describe a continuum from positive states, which include momentary and passing moods and feelings (e.g. pleasure and happiness) to positive traits which are fixed, stable and very difficult to change (e.g. intelligence, big five personality dimensions). Psychological capital constructs are conceptualised as being “state-like”: relatively malleable and open to development but much more stable than affective reactions.

## Entrepreneurial Psychological Capital

### What is Psychological Capital?

Psychological Capital was developed by Luthans (2002) from the nascent ideas of positive psychology (Seligman and Csikszentmihalyi, 2000). He argued that like mainstream psychology organization behaviour was more interested in negative concepts, using examples such as, Robinson and Bennett (1995)'s typology of negative workplace behaviours (Luthans, 2002, Luthans and Youssef, 2004, Luthans et al., 2007).

Psychological capital, to date, consists of four constructs drawn from the positive psychology literature: Efficacy, Hope, Optimism and Resilience. It is unclear from the literature why these were chosen and others rejected.

- *Self-efficacy* within Psychological capital draws on the work of Bandura (1977) and is defined by as “the employee’s conviction or confidence about his or her abilities to mobilize the motivations, cognitive resources or courses of action needed to successfully execute a specific task within a given context”. Self-efficacy is envisaged as being domain specific and not generalised.
- *Hope* is drawn from the work of (Snyder, 1994, Snyder and Snyder, 2000) and in Psychological capital is conceived as “a positive motivational state that is based on an interactively derived sense of agency (goal directed energy) an pathways (planning to meet these goals).” The three ideas within Hope are agency, pathways and goals.
- *Optimism* draws on the work of Seligman and Csikszentmihalyi (2000) and is defined as making internal, stable and global attributions regarding positive events; and making external, unstable and specific attributions for negative events.
- *Resilience* is defined as “the positive psychological capacity to rebound or bounce back from adversity, uncertainty, conflict, failure, or even positive change, progress and increased responsibility” and is built partly on the work of Masten (2001).

Each of the constructs within psychological capital has discriminant validity (i.e. they are not just different names for the same construct); there is a latent or underlying link which runs between them; and the initial study also showed a correlation with performance and job satisfaction (Luthans et al., 2007).

Since this initial work, the concept has been developed and studied, and in their meta-analysis of 51 studies Avey et al. (2011) showed that psychological capital is correlated with job satisfaction, organizational commitment, psychological well-being, organisation citizenship behaviours, various measures of performance and was negatively related with cynicism, turnover intentions, job stress, anxiety and deviance. They also found that effect sizes were greatest in service businesses and in the United States, and Baron et al. (2013) found that age is also a moderator of the effect of psychological capital. As Newman et al. (2014) pointed out there is still much to investigate in terms of the moderators of psychological capital.

Effect sizes for psychological capital with potentially relevant outcome measures											
Sample	k	N	r	Corr-r	sd	95% Cred I		95% Conf I		Q	BESD Exp
						lower	upper	lower	upper		
Psych well-being	3	1,305	0.40	0.57	0.06			0.51	0.62	17.14*	0.78
Stress / anxiety	4	1,459	-0.20	-0.29	0.20	0.47	-0.10	-0.34	-0.24	28.71**	0.36
Employee performance	24	6,931	0.26	0.26	0.08			0.24	0.29	391.13**	0.63
Self rated performance	6	1,921	0.31	0.33	0.18			0.29	0.37	15.24**	0.67
Objective performance data	6	1,768	0.26	0.27	0.15			0.23	0.32	18.43**	0.27
*p<0.5, **p<.001											

Table 1. Selected results tables from Avey et al. (2011) meta-analysis.

# **Entrepreneurial Psychological Capital**

## **Entrepreneurial Psychological Capital – What we know**

Psychological capital is a relatively new concept which is still being developed, and whilst the idea of entrepreneurial psychological capital has been suggested by several researchers (Jensen and Luthans, 2006, Hmieleski and Carr, 2008, Baron et al., 2013, Ming and Zuguang, 2013), and their work is interesting, there is scope for further development.

Jensen and Luthans (2006) looked at entrepreneur's psychological capital from the perspective of authentic leadership. The work was done before Luthans et al. (2007) had fully developed the framework and their measure did not include efficacy. Hmieleski and Carr (2008) found that psychological capital explained new venture performance above and beyond measures of financial capital, human capital, and social capital and Baron et al. (2013) studied the relationship between psychological capital and wellbeing, finding that entrepreneurs with higher psychological capital had higher wellbeing.

## **Developing a Model of Entrepreneurial Psychological Capital**

The studies described, apply the ideas and measures of psychological capital (which were developed to study employees) to entrepreneurs. As well as being cross-sectional, the studies were all US based and do not provide an independent theoretical development of entrepreneurial psychological capital. Entrepreneurial psychological capital may need to include different constructs to employee psychological capital, and theoretically, it needs to be built up from the ground up rather than simply applying theory from the organisational domain to entrepreneurship.

It is difficult to see how some items from the psychological capital measurement tool could be meaningful to entrepreneurs. For instance, how can an entrepreneur answer the question: "I feel confident representing my work area in meetings with management?" However, existing psychological capital tools do have the advantage of being tried and tested; they have good statistical properties and have been shown to relate to positive individual and organisational outcomes, as well as being open to development as a result of experience or interventions.

It will be necessary to consider the constructs currently used in the psychological capital literature as well other constructs from the entrepreneurship literature. To do this we are basing this additionally on separate literatures on each of the four constructs included and tools which have been developed for them, for instance, the hope scale developed by Snyder et al. (1996); Wagnild (1993)'s resilience scale; Scheier and Carver (1985)'s optimism scale and Parker (1998)'s self-efficacy scale. Additionally within the entrepreneurship literature, self-efficacy has been studied extensively and measures of entrepreneurial self-efficacy developed (McGee et al., 2009) although it tends to be studied as a personality trait rather than a state which can be developed; and entrepreneurial resilience has also been explored (Ayala and Manzano, 2014). Moreover, (Luthans et al., 2015) has suggested the possible inclusion of additional psychological resources such as creativity, flow, mindfulness, gratitude, emotional intelligence, authenticity and courage.

From the entrepreneurship literature certain domain specific constructs are being explored. The main inclusion criteria in the final model will be that they provide discriminant validity and are open to development. Candidate constructs include, creativity, proactivity and entrepreneurial orientation. Additionally, potential moderators are being considered. These include age, gender and education details as well as details of venture type which as well increasing explanatory power would help to contextualise the findings.



### **Conclusions**

This study will help to create a theoretical bridge between the psychological entrepreneurship literatures on traits and emotion, as well as psychological context for human and social capital entrepreneurship models. Perhaps more importantly will be the development of a psychometric tool which will help entrepreneurship educators to support nascent entrepreneurs, and allow potential entrepreneurs to decide if they have, or need to acquire the psychological resources necessary to start a business.

# Entrepreneurial Psychological Capital

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